

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the matter of	)	
	)	
Revision of the Commission's Rules To)		
Ensure Compatibility with Enhanced 911	)	CC Docket No. 94-102
Emergency Calling Systems	)	
	)	

May 2, 2005

**Quarterly Report of Western Wireless Corporation  
on its Enhanced 911 Phase II Deployment**

Western Wireless Corporation ("Western"), on behalf of its subsidiaries, WWC Holding Co., Inc., WWC License L.L.C., and WWC Texas RSA Limited Partnership, and pursuant to the Federal Communications Commission's ("FCC") Order to Stay ("Order"), hereby submits its eleventh Quarterly Report on its plans and progress regarding the deployment of Enhanced 911 ("E911") Phase I and Phase II services.<sup>1</sup> For purposes of E911 Phase II deployment and according to the Order, Western is defined as a Tier II carrier because it had more than 500,000 subscribers as of the end of 2001.<sup>2</sup>

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<sup>1</sup> See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Order to Stay, FCC 02-210 (2002).

<sup>2</sup> *Id.*

## **I. Introduction**

Western provides Commercial Mobile Radio Service (“CMRS”) under the Cellular One and Western Wireless brand names in 19 states west of the Mississippi River. Western’s network is comprised of equipment from multiple manufacturers and infrastructure providers, and it operates analog and digital CMRS on its network using both Lucent and Nortel equipment. Additionally, Western’s network accommodates roaming traffic using multiple technologies (CDMA, TDMA, GSM, and AMPS). Western uses a handset-based solution – Assisted Global Positioning System (“AGPS”) – to provide Phase II service to its customers and uses best practices to provide E911 service to roamers. Western has previously submitted ten Quarterly Reports apprising the Commission of its progress in deploying E911 services. This eleventh report updates the Commission on Western’s progress to date in deploying E911 services.

## **II. New Handset Sales**

As reported earlier, Western began selling and activating location-capable handsets in 2002, well in advance of the Commission’s March 1, 2003 deadline. Western now offers twenty-six different models of compliant handsets. Western is currently selling the Audiovox 8410, Audiovox 8600, Audiovox 8900, Audiovox 8910, Audiovox 8930, Kyocera KE414, Kyocera 3245, Kyocera 7135, Kyocera KX434, Kyocera SE44, Kyocera Aktiv/484, Kyocera Soho KX1, Motorola V60i, Motorola V120e, Motorola T731, Motorola

T720, Motorola E310, Motorola V810, Nokia 3585i, Nokia 3587i, Nokia 6015, Nokia 6255, Samsung A670, LG 3200, LG 5550 and the LG 6100 handsets with GPS capabilities. These handsets include the necessary GPS chipset which, when 9-1-1 is dialed, will enable it to calculate the latitude and longitude of the customer based upon communications with orbiting satellites. Western is also currently evaluating additional location-capable handsets to offer to its customers.

During the last quarter, Western increased its efforts to communicate with its customers about the benefits of E911 service and the importance of having a GPS-equipped phone capable of utilizing Western's Phase II service. This marketing and advertising campaign includes merchandising, internet, customer communications, public relations, and internal and external communication activities designed to educate and inform Western's customers. Western is offering sales promotions and customer incentives to encourage customers to take advantage of the public safety benefits of having a GPS-equipped phone. Western is also encouraging its customers with non-GPS-equipped handsets to upgrade their phones to a GPS-equipped model. This campaign is running in May and June, and will be followed by similarly aggressive and targeted efforts until the 95% penetration requirement is met.

Western offers service to the public via a wide assortment of sales channels and distributors, including indirect third-party dealers. Through these distributions outlets, customers obtain service and purchase handsets

of their choice. Customers also can obtain handsets themselves and seek to activate them on Western's network. Western has established and implemented policies and procedures and contractual requirements with respect to the Commission's Phase II E911 digital handset activation requirements, and has informed its internal staff and indirect dealers on the need for absolute compliance with the Commission's Phase II E911 digital handset sale requirements. Notwithstanding these efforts, as the Commission has recognized, "carriers do not have complete control over their customers' handset choices or over handset manufacturers and that it will likely be impossible to literally achieve 100 percent penetration of ALI-capable handsets."<sup>3</sup> There are significant challenges, as explained below, to meeting an absolute standard, such as the 100% GPS handset activation requirement.

GPS phones typically cost more than non-GPS phones and have little or no additional value to consumers residing in rural areas where Phase II service is not available. In many of Western's rural markets, Public Safety Answering Points ("PSAPs") have not yet implemented Phase II E911 service and therefore Phase II location-capable handsets have no immediate benefit to consumers. Until Phase II E911 service is implemented in an area, customers do not realize the benefits of having a handset capable of delivering location information to a PSAP. Given the limited usefulness of GPS phones in these areas, customers often prefer cheaper non-GPS phones

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<sup>3</sup> Third Report and Order, CC Docket No. 94.102, FCC 99-245 (Released October 6, 1999).

over generally higher priced GPS phones. Consequently, although Western has taken steps to only sell Phase II compliant phones, consumers continue to look for ways to obtain service, either directly through the Company or through indirect channels, at the lowest possible cost, which may involve the purchase of a non-GPS capable phone.

Because of the multiple channels available for customers to obtain Western's service, it is difficult to precisely measure the type of handsets being activated on its network. The nature of distribution channels and the wide opportunity for customers to choose older non-GPS handsets from alternative sources makes activating only ALI-capable handsets difficult, if not impossible, to meet. Moreover, tracking activations and re-activations against a wide assortment of changing digital and analog phones with multiple technologies is a significant challenge to achieving the 100% new digital handset activation requirement.<sup>4</sup>

The Commission's requirement calls for "100% of all new digital handsets activated"<sup>5</sup> to be location-capable. From the most recent handset sales data available (e.g., March 2005), nearly 100% of Western's digital handset activations from its company-owned and operated stores and outlets

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<sup>4</sup> *Fourth Memorandum Opinion and Order*, 15 FCC Rcd 17442, 17455 n.62 (2000). Various categories of handset types and activation channels often require separate calculation. The FCC has recognized the need for some exceptions in calculating handset activations by excluding refurbished handsets and handsets activated by resellers. See Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 25340, 25380 par. 97 (2003) ("licensees that meet the E911 compliance obligations through GPS-enabled handsets and have agreements with resellers will not be required to include the resellers' handset counts in their compliance percentages."); *Fourth Memorandum Opinion and Order* at par. 34 (refurbished and older model handsets).

<sup>5</sup> *Id.* at par. 35 (emphasis added).

were location-capable phones.<sup>6</sup> The Company has implemented safeguards to ensure that only GPS E911 Phase II devices are activated on its network in the future, including purging from its inventory of phones all non-E911 Phase II compliant handsets, making sure that its dealers are aware of the Company's policies and procedures aimed at ensuring compliance with the 100% standard, and reducing and eliminating commissions on sales or activations of non-Phase II E911 phones. Western is committed to meeting the Commission's E911 requirements and will take every step possible to achieve compliance with the 100% standard.

### **III. Handset Customer Base**

The Commission's rules require Tier II carriers, like Western Wireless, to "ensure that penetration of location-capable handsets among its subscribers reaches 95 percent no later than December 31, 2005." 47 C.F.R. § 20.18. Meeting this objective will require carriers to migrate existing subscribers that have non-GPS handsets to handsets with GPS capability. A carrier, however, cannot accomplish this alone, but instead relies on the cooperation and interest of its subscribers to exchange their existing handsets for GPS-capable handsets. Many of Western's subscribers with non-GPS handsets have become accustomed to their handsets and do not want to exchange them for newer handsets with capabilities that they may not need or want. In addition, subscribers with analog-only handsets that work very

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<sup>6</sup> Because of reporting discrepancies, the Company is not able to confirm with absolute certainty that there were no non-GPS handset activations on its network.

well throughout our rural footprint (as compared to digital handsets that work best in areas in close proximity to cell sites) may be reluctant to change handsets.

Western Wireless is aggressively working to meet the 95% standard, including the newly launched marketing and advertising campaign described above. Over the next few months, we will be able to determine whether subscriber migrations will enable the Company to meet the 95% objective, and we will keep the Commission informed regarding the status of our efforts.

#### **IV. Network Deployment**

Western has spent considerable effort and expense in pursuit of readying its network in order to deliver Phase I and Phase II services. In order for Phase II service to work, many network elements must be upgraded and the entire network, from handset to PSAP, must be carefully coordinated to provide a seamless interface to carry the Phase II signal. If any portion of the network, public or private, is not prepared to carry the Phase II signal, the enhanced service will not work. Western's activities have included testing GPS-capable handsets, cell sites, mobile switches, network facilities, and the Position Determination Equipment ("PDE") and Mobile Positioning Center ("MPC"). Both are critical elements of Western's Phase II network. Lastly, Western completed the software upgrades to its Nortel and Lucent Mobile Switching Centers ("MSCs").

Western is also closely working with the Local Exchange Carriers (“LECs”) and PSAPs to ensure that the existing emergency communications systems infrastructure will be capable of transporting the Phase II signal that Western will be sending to the PSAPs. Western works cooperatively with all of its requesting PSAPs to complete its deployments on time. Additionally, Western is working closely with national and state PSAP representatives to coordinate the planning and deployment of service.

As reported earlier, Western first deployed E911 Phase II service in the First Quarter of 2003. In spite of these successful deployments, there remain significant challenges to timely deploying E911 Phase II services in rural America. In many rural markets, the LEC networks and the public safety equipment require substantial upgrades in order to support the advanced signaling and data elements associated with Phase II service. In many of its states, Western is the first wireless carrier of any size undertaking Phase II deployment efforts.

In some states, both the LEC and the PSAP are still in the process of upgrading their equipment to be capable of receiving and processing Phase II location information. There continues to be numerous unresolved obstacles to deployment of Phase II E911 service in certain states. As the Commission is aware, the LECs play a critical role in the delivery of service from the wireless network to the PSAP, and without the complete preparation and upgrading of the LEC network, the service will not work. Many of the ALI



databases operated by the LEC have a great deal of work left to do in order to complete the necessary upgrades.<sup>7</sup>

#### **IV. Deployment Status**

Western has received one or more requests for delivery of Phase I E911 service from PSAPs in fifteen of the 19 states in which it provides service. During the last three months, Western has received only five new requests for Phase I service and seventeen new requests for Phase II service. Altogether Western has received over 400 requests for Phase I and Phase II service, of which over 370 are currently receiving service. Western is currently providing Phase I service to nearly 280 PSAPs and is providing Phase II service to approximately 95 PSAPs.

In Western's rural markets, Western often finds itself first to deploy Phase I service to each of its requesting PSAPs, and frequently the PSAPs are largely unfamiliar with wireless networks and the deployment process. Because of this, Western is often the first carrier to explain and actually work through the deployment process with many of the PSAPs. The initial deployments for first-time PSAPs can result in steep learning curves and delays in implementation.

In accordance with the Commission's rule changes addressed in the *Richardson Order on Reconsideration*, a request for service from a PSAP is not valid unless a PSAP is capable or will be capable of receiving and

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<sup>7</sup> See Dale N. Hatfield, A Report on Technical and Operational Issues Impacting The Provision of Wireless Enhanced 911 Services, October 15, 2002.

utilizing the service by the end of the six-month deployment deadline.<sup>8</sup> The Commission's *Richardson Order* acknowledged that it is inefficient to require wireless carriers to waste valuable time attempting to deploy service in areas where the PSAP, because of its own or the LECs' unpreparedness, is not capable of receiving and utilizing the Phase II information.<sup>9</sup>

The ability of Western to timely deploy service is dependent upon the completion of necessary network facility and ALI database upgrades by the PSAPs and LECs. Timely deployment is also contingent upon the responsiveness of the PSAP requesting delivery of the service. Deployment requires careful coordination and cooperation between the parties, and in some rural areas the PSAPs are thinly staffed and have many responsibilities besides wireless E911 deployment. To ensure timely deployment of E911 service, call routing assignments and other critical paperwork must be completed and exchanged between the parties. When delays occur it makes it difficult to complete deployment within the required timeline. Notwithstanding these challenges, Western works cooperatively with PSAPs in order to timely deploy service in accordance with Commission rules, and will continue to work with the PSAPs and LECs to resolve any issues impacting deployment of service.

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<sup>8</sup> See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Petition of City of Richardson, Texas, CC Docket No. 94-102, Order on Reconsideration, (Nov. 26, 2002) ("Richardson Order on Reconsideration").

<sup>9</sup> See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Petition of City of Richardson Texas, Order, 16 FCC Rcd 18987 (Oct. 17, 2001) ("Richardson Order").

In some instances, Western and the PSAP have reached an understanding on an alternative deployment agreement, which takes into account the Commission's new rules and the current situation surrounding the readiness of the vital network elements. Most PSAPs have agreed to work cooperatively with Western to overcome any potential obstacles that might delay the deployment of service. Attachment B contains copies of the alternative deployment agreements that Western has agreed to for various PSAPs. Western is confident that it can continue to work together cooperatively with its requesting PSAP to deliver service in a timely and satisfactory manner.

#### **V. Phase I Requests**

Since its last report, Western has received five new requests for Phase I service and it has deployed Phase I service to seven new PSAPs. It currently has 13 requests for Phase I service pending deployment.

#### **VI. Phase II Requests**

Since its last report, Western has received seventeen new requests for Phase II service. Also during this time, Western has completed Phase II deployments to ten PSAPs. It currently has 26 requests for Phase II service pending deployment.

#### **VII. Conclusion**

Western is currently delivering Phase I and II service in those areas where the PSAP has completed its necessary equipment upgrades and where

the LEC infrastructure, including the ALI database, have been sufficiently upgraded to pass along the Phase II location information. Western remains committed to working with all of its requesting-PSAPs to deliver E911 service to them as soon as technically possible. Attached as Attachment A is a spreadsheet (“Reporting Matrix”) identifying the status for all requests for E911 service received by Western. Attachment C contains copies of Western’s most recent alternative deployment agreements with various PSAPs. A signed and notarized Affidavit supporting this quarterly report is attached in Attachment C.

## **Attachment A**

### **E911 Status Spreadsheet Reporting Matrix**

## **Attachment B**

### **Alternative Deployment Agreements**

**Attachment C**

**Affidavit**